

REMARKS

Claims 1 - 20 are pending in the present application. By this Amendment, claims 1 - 20 have been amended. No new matter has been added. It is respectfully submitted that this Amendment is fully responsive to the Office Action dated August 29, 2003.

Claim Objections:

Claims 1, 5, 9-11, 14 and 17-20 stand objected to on page 2 of the Action due to some apparent informalities. However, it is respectfully submitted that each of these claims 1, 5, 9 - 11, 14 and 17 - 20 have been amended to correct such informalities. Accordingly, withdrawal of this objection is respectfully requested.

As to the Merits

As to the merits of this case, the Examiner sets forth the following rejections:

- 1) claims 1-3, 5-7 and 9-20 are rejected under 35 U.S.C. §102(e) as being anticipated by Tanaka et al. (U.S. Patent No. 6,567,972); and
- 2) claims 4 and 8 are rejected under 35 U.S.C. §103(a) as being unpatentable over Tanaka et al. (U.S. Patent No. 6,567,972) in view of prior admitted art.

Both of these rejections are respectfully traversed.

The present invention relates to a pattern detection method in which alignment reference coordinates are set in a region near a target pattern in a device forming region of a mask pattern formed on a mask for a semiconductor product, the target pattern to be a target of a test of the mask pattern such that the target pattern can swiftly and automatically be detected with high precision based on the alignment reference coordinates (*see* page 5, lines 7-12 of the specification).

Tanaka relates to a method for correcting a mask pattern deviated due to optical proximity effects that arise when the mask pattern is transferred onto a substrate, and particularly relates to a method for correcting the mask pattern in consideration of various deviations that are assumed in the optical lithography process (deviations in exposure dose, focusing, etc.), as described in column 1, lines 19 to 25.

Tanaka does not disclose a method for detecting a mask pattern as disclosed by the present application. That is, Tanaka fails to disclose “detecting a target pattern in a device forming region on a mask, comprising: selecting, as an alignment pattern in the device region, the alignment pattern for setting a position at which the detection of the target pattern is performed, from among a group of patterns included in a region near the target pattern, the region in the device forming region, a pattern having a barycenter position at a barycenter of the pattern in a first direction, the barycenter position that is not displaced from a predetermined barycenter even if the patterns are deformed when the patterns are formed on the mask; setting the barycenter position of the alignment pattern


in the first direction as alignment reference coordinates; and detecting the target pattern based on the alignment reference coordinates," as recited in the amended independent claims and as pointed out in your analysis.

For at least the foregoing reasons, it is believed that this application is now in condition for allowance. If, for any reason, it is believed that this application is not in condition for allowance, Examiner is encouraged to contact the Applicants' undersigned attorney at the telephone number below to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 50-2866.

Respectfully submitted,

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